SREE AYYAPPA COLLEGE

(Managed by Travancore Devaswom Board, Thiruvananthapuram)
Government Aided College, Affiliated to University of Kerala
Eramallikkara, Chengannur, Alappuzha District - 689 109, Kerala, India
www.sreeayyappacollege.ac.in

December 2020 - February 2021

Skill Development Course in Mathematics

INTRODUCTION TO LATEX

Course Code: SDC 2021

Organized by Department of Mathematics, SAC

Course Objective

LATEX is a Science Typesetting Software. The aim of introducing LATEX software is to enable students to typeset the project report which is a compulsory requirement for finishing their undergraduate programme successfully.

COURSE CERTIFICATE

Eligibility: Plus Two or any Bachelors Degree.
The course fee is free.

To get a certificate, you have to register and write the proctored examination at Sree Ayyappa College, Eramallikkara.
Examination Date: 19th March, 2021, Morning : 10:00 am to 11:30 am
Registration forms are made available at Mathematics Department.

CRITERIA TO GET A CERTIFICATE

Written Examination = 50 marks (Objective Type. No negative marks for wrong answers)

For more Details Contact

Dr. R.T. Ananth Kumar (Assistant Professor of Physics)
Convener
Centre for Incubation and Entrepreneurship (CIE)
Sree Ayyappa College
Eramallikkara, Chengannur
Alappuzha District – 689109
Kerala
Mail: ananthkumarrt@gmail.com
Mobile: +91-9847572822

Organized by

Centre for Incubation and Entrepreneurship, Sree Ayyappa College

In Association with

Department of Mathematics and IQAC

SREE AYYAPPA COLLEGE
(Managed by Travancore Devaswom Board, Thiruvananthapuram)
Govt. Aided College, Affiliated to the University of Kerala
Established in 1995
Eramallikkara, Chengannur
Alappuzha District – 689109
Kerala
website : www.sreeayyappacollege.ac.in

Report of

Advance Certificate Programme on

SKILL DEVELOPMENT COURSES

2020-2021

1. **Advance certificate programme on "Introduction to LATEX "**
   Course code : SDC 2021

Course Objective

LATEX - is a Science typesetting software. The aim of introducing LATEX software is to enable students to typeset the project report which is a compulsory requirement for finishing their undergraduate programme successfully.

Course details

Duration in month : 3 Months (35 hours, Theory & Practical)
Mode of Class : Online by Google Meet
Course started on : 02/12/2020 (Wednesday)
Course ended on : 26/02/2021 (Friday)
Day at which classes conducted : Monday, Wednesday & Friday (Dec. 2020 - February 2021)
Time of the classes conducted : 04:00 pm to 05:00 pm
Date of Examination : 19/03/2021
Date of result publication : 25/03/2021

Brief Report

The theory and practical sessions of the advanced certificate programme on "Introduction to LATEX" was handled by Dr. Vidhya N (The Head. Department of Mathematics). In the academic year 2020-2021 a total of twenty five students attended the certificate programme and all the students have completed the course successfully. The hard copy of the certificates were issued to the students.

IQAC Convener

SKILL DEVELOPMENT COURSE IN MATHEMATICS

Introduction to L^AT_EX Instructional hours - 30

Course Code: SDC 2021

L^AT_EX is a Science Typesetting Software. The aim of introducing L^AT_EX Software is to enable students to typeset the project report which is a compulsory requirement for finishing their undergraduate programme successfully.

Course Objective:

To introduce the basics of how LaTeX works, how to install LaTeX and Tex editor TeXstudio, explain how to get started, and go through lots of examples.

L^AT_EX for Preparing a Project Report :

Graphical User Interface (GUI)/ Editor like Kile or TeXstudio should be used for providing training to the students. The main topics are the following:

Typesetting a simple article and compiling it;

How spaces are treated in the document;

Document layout : various options to be included in the documentclass command, page styles, splitting files into smaller files, breaking line and page, using boxes (like, mbox) to keep text unbroken across lines, dividing document in to parts like frontmatter, mainmatter, backmatter, chapters, sections, etc., cross referencing with and without page number, adding footnotes;

Emphasizing words with \emph, \texttt, \textsl, \textit, \underline etc.

Basic environments like enumerate, itemize, description, flushleft, flusuright, center, quote, quotation

Tables : Preparing a table and floating it.

Typesetting Mathematics : Basic symbols, equations, operators, the equation environment and reference to it, exponents, arrows, basic functions, limits, fractions, spacing in the Mathematics environments, matrices, controlling font size, typesetting theorems, definitions, lemmas, etc., making text bold in math mode, inserting symbols and environments (array, pmatrix etc.) using the support of GUIs;

Figures : Including JPG, PNG graphics with graphicx package.

Adding references/bibliography and citing them.

Fonts : changing font size, various fonts, math fonts,

Spacing : changing line spacing, controlling horizontal, vertical spacing, controlling the margins using the geometry package, full-page package

Sree Ayyappa College, Chengannur
Skill Development Course

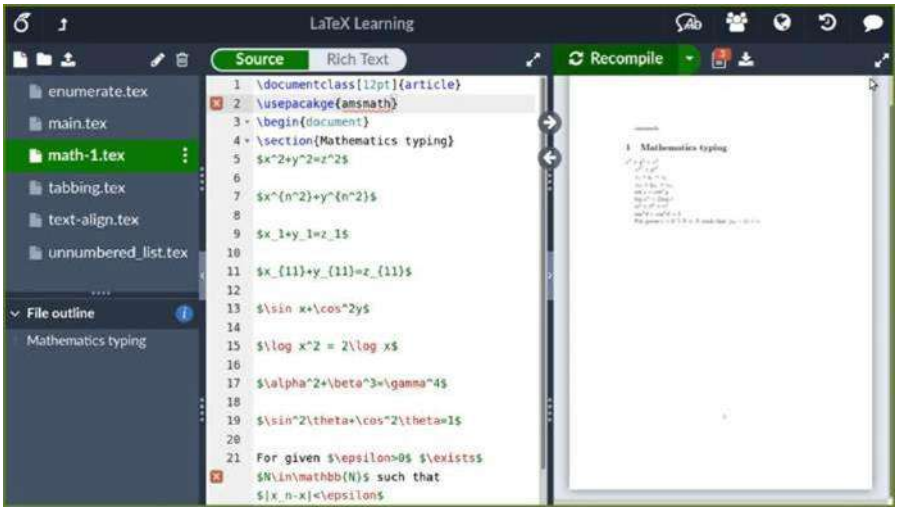
Advance certificate programme on "Introduction to LATEX "
Course code : SDC 2021

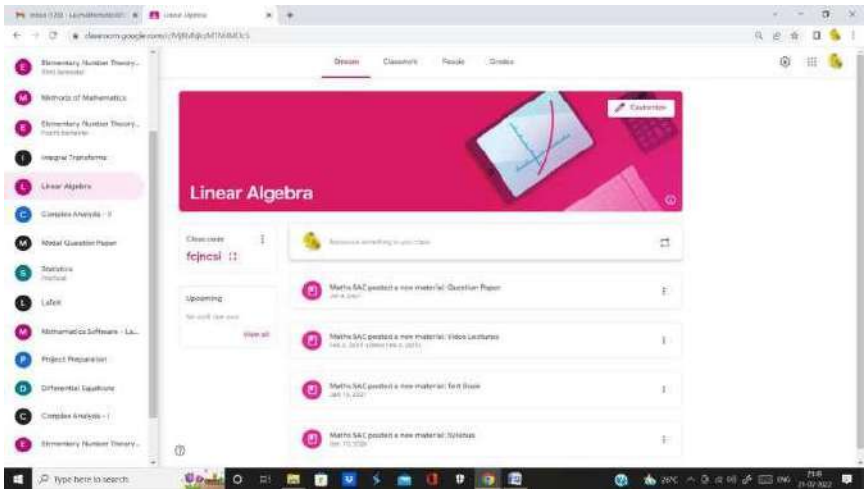
List of Students
(Carried out in 2020-21 academic year)

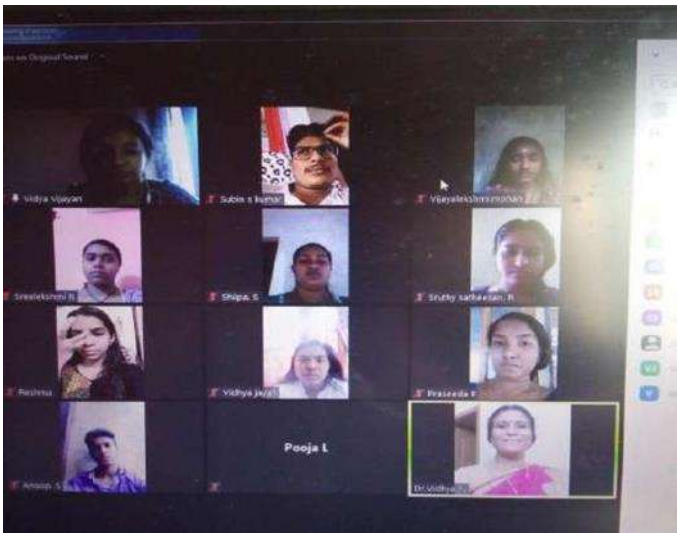
Sl.No.	Candidate Name
1.	VidyaVijayan
2.	Arya. S
3.	Reshma S
4.	Sreelekshmi R
5.	Anoop. S
6.	Aswathy. S
7.	Subin S Kumar
8	SruthySatheesan. R
9	Pooja L
10	Adarsh Krishnan
11	Praseeda P
12.	Akhila s
13	Nrithya D Babu
14	Parvathy. V
15	VidhyaJayan J S
16	Shilpa. S
17	Sreelekshmi Reghu
18	Vijayalekshmi. Mohan
19	Anasooya K Nair
20	Aneesh V
21	Gouripriya M
22	Athulya M J
23	Meena V Raj
24	Ashwin
25	Abhay Krishna

An Introduction to LATEX

Course code: SDC 2021







Students List

1. **Advance certificate programme on "LATEX - A Document Preparation Software in Mathematics" (2021-2022)**

S.No.	Name	Signature
1.	Anasooya K Nair	
2.	Aneesh V	
3.	Gouripriya M	
4.	Meena V Raj	
5.	Abin Jacob Manoj	
6.	Gopika R Nair	
7.	Niranjana V T	
8.	Pooja Krishna M	
9.	Samudra Prasad	
10.	Anuja S S	
11.	Likhitha Babu	
12.	Sreekutty	

Course Coordinator
01/12/2021

PRINCIPAL
Sree Ayyappa College (T.D.B)
Eramallikkara - 689 109
Thiruvanvandoor, Chengannur
Alappuzha Dist, Kerala

SREE AYYAPPA COLLEGE (T.D.B) CHENGANNUR, ALAPPUZHA DIST. - 689 109 ERAMALLIKKARA PO THIRUVANVANDOOR

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Attendance

1. **Advance certificate programme on "LATEX - A Document Preparation Software in Mathematics"**

Attendance For December 2021
Time: 03:15 pm to 04:15 pm

S.No.	Name	1/12/21	3/12/21	6/12/21	8/12/21	10/12/21	13/12/21	15/12/21	17/12/21	20/12/21	22/12/21
1.	Anasooya K Nair	Anasooya	Anasooya	Anasooya	Anasooya	Anasooya	A	Anasooya	Anasooya	Anasooya	Anasooya
2.	Aneesh V	Aneesh	Aneesh	A	Aneesh	Aneesh	Aneesh	A	Aneesh	Aneesh	Aneesh
3.	Gouripriya M	Gouri	Gouri	Gouri	Gouri	Gouri	Gouri	Gouri	Gouri	Gouri	Gouri
4.	Meena V Raj	Meena	Meena	Meena	Meena	Meena	Meena	Meena	Meena	Meena	Meena
5.	Abin Jacob Manoj	Abin	Abin	A	Abin	Abin	A	Abin	Abin	Abin	Abin
6.	Gopika R Nair	Gopi	Gopi	A	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi	Gopi
7.	Niranjana V T	Anju	Anju	Anju	Anju	Anju	Anju	Anju	Anju	Anju	Anju
8.	Pooja Krishna M	Poojakri	Poojakri	Poojakri	Poojakri	Poojakri	Poojakri	A	Poojakri	Poojakri	Poojakri
9.	Samudra Prasad	Samudra	Samudra	Samudra	Samudra	Samudra	Samudra	Samudra	Samudra	A	Samudra
10.	Anuja S S	Anu	Anu	Anu	Anu	Anu	A	Anu	Anu	Anu	Anu
11.	Likhitha Babu	Likhitha	Likhitha	Likhitha	Likhitha	Likhitha	Likhitha	Likhitha	Likhitha	Likhitha	Likhitha
12.	Sreekutty	Sreekutty	Sreekutty	Sreekutty	A	Sreekutty	Sreekutty	Sreekutty	Sreekutty	Sreekutty	Sreekutty

No. of days classes conducted in December, 2021 : 10

Course Coordinator
(Dr. ANANTH KUMAR RT)

HOD (Mathematics)

IQAC Convener

PRINCIPAL
Sree Ayyappa College (T.D.B)
Thiruvallankara
Thiruvananthapuram
Alappuzha

SREE AYYAPPA COLLEGE (T.D.B) THIRUVALLANKARA P.O. THIRUVANANTHAPURAM

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Attendance

1. **Advance certificate programme on "LATEX - A Document Preparation Software in Mathematics"**

Attendance For January 2022
Time: 03:15 pm to 04:15 pm

S.No.	Name	3/1/22	5/1/22	7/1/22	10/1/22	12/1/22	14/1/22	17/1/22	19/1/22	21/1/22	24/1/22	28/1/22
1.	Anasooya K Nair											
2.	Aneesh V	A			A					A		
3.	Gouripriya M		A									
4.	Meena V Raj											
5.	Abin Jacob Manoj				A			A			A	
6.	Gopika R Nair							A				
7.	Niranjana V T											
8.	Pooja Krishna M											
9.	Samudra Prasad											
10.	Anuja S S											
11.	Likhitha Babu						A					
12.	Sreekutty											

No. of days classes conducted in January, 2021 : 11

Course Coordinator
(Dr. ANANTH KUMAR RT)

HOD (Mathematics)

IQAC Convener

PRINCIPAL
College (T.D.P)
Thiruvanvandoor, Chengannur
Alappuzha Dist, Kerala

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1. **Advance certificate p[illegible]**

Attendance For February 2022

Time: 03:15 pm to 04:15 pm

S.No.	Name	2/2/22	4/2/22	7/2/22	9/2/22	11/2/22	14/2/22	16/2/22	18/2/22	21/2/22	23/2/22	25/2/22	28/2/22
1.	Anasooya K Nair								A				
2.	Aneesh V	A										A	
3.	Gouripriya M												
4.	Meena V Raj												
5.	Abin Jacob Manoj				A								
6.	Gopika R Nair									A			
7.	Niranjana V T												
8.	Pooja Krishna M												
9.	Samudra Prasad												
10.	Anuja S S												
11.	Likhitha Babu												
12.	Sreekutty								A				

No. of days classes conducted in February, 2021 : 12

Total Number of classes conducted from December 2021 to March 2022 :

R.T.A

Course Coordinator

(Dr. ANANTH KUMAR RT)

HOD (Mathematics)

IQAC Convener

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Result

1. **Advance certificate programme on "LATEX - A Document Preparation Software in Mathematics" (2021-2022)**

Date of Exam : 20/03/2022
Result published on : 26/03/2022

S.No.	Name	Total marks awarded	Maximum marks	Result	Whether Received the certificate	Signature with date
1.	Anasooya K Nair	42	50	Pass	Yes	26/3/22
2.	Aneesh V	33	50	Pass	Yes	26/03/2022
3.	Gouripriya M	45	50	Pass	Yes	26/3/22
4.	Meena V Raj	42	50	Pass	Yes	26/3/22
5.	Abin Jacob Manoj	38	50	Pass	Yes	26/03/2022
6.	Gopika R Nair	40	50	Pass	Yes	26/3/22
7.	Niranjana V T	45	50	Pass	Yes	26/3/22
8.	Pooja Krishna M	43	50	Pass	Yes	26/3/22
9.	Samudra Prasad	45	50	Pass	Yes	26/3/22
10.	Anuja S S	38	50	Pass	Yes	26/3/22
11.	Likhitha Babu	40	50	Pass	Yes	26/3/22
12.	Sreekutty	42	50	Pass	Yes	26/3/22

R-T-A 26/03/2022
Course Coordinator
(Dr-ANANTH KUMAR R T)

26/03/2022
HOD (Mathematics)

IQAC Convener

Sree Ayyappa College (T.D.B)
Eramallikkara - 689 109
Thiruvanvandoor (Chengannur)
Kerala

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www.sreeayyappacollege.ac.in

Department of Mathematics
Advance Certificate Programme on

SKILL DEVELOPMENT COURSE 2021-2022
A Brief Report

Course title : Advance certificate programme on "LATEX - A Document Preparation Software in Mathematics"

Course Code : SDC 2022

Course Objective

LATEX - is a Science typesetting software. The aim of introducing LATEX software is to enable students to typeset the project report which is a compulsory requirement for finishing their undergraduate programme successfully.

Course details

Duration in month: 3 Months (35 hours, Theory & Practical)
Course started on: 01/12/2021 (Wednesday)
Course ended on: 28/02/2022 (Monday)
Date of the classes conducted: Monday, Wednesday & Friday (Dec. 2021 - March 2022)
Time of the classes conducted: 03:15 pm to 04:15 pm
Date of Examination: 20/03/2022
Date of result publication: 26/03/2022

Brief Report

The theory and practical sessions of the advanced certificate programme on "LATEX - A Document Preparation Software in Mathematics" was handled by Dr. Vidhya N (The Head. Department of Mathematics). In the academic year 2021-2022 a total of twelve students attended the certificate programme and all the students completed the course successfully. The hard copies of the certificates were issued to the students.

Course Coordinator
26/03/2022
(Dr. ANANTH KUMAR RT)

HoD
Dr. Vidhya. N

IQAC Convener
26/03/2022

SREE AYYAPPA COLLEGE (T.D.B) ERAMALLIKKARA P.O, THIRUVANVANDOOR CHENGANNUR ALAPPUZHA

PRINCIPAL
Sree Ayyappa College (T.D.B)
Eramallikkara - 689 109
Thiruvanvandoor Chengannur

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SREE AYYAPPA COLLEGE

(Govt. Aided College, Affiliated to University of Kerala)

Eramallikkara, Chengannur, Alappuzha - 689 109. Kerala
sreeayyappacollege@gmail.com

CERTIFICATE

This certificate is awarded to Sreekutty _____ for successfully completing the course

LATEX - A Document Preparation Software in Mathematics

with a consolidated score of 84 %.

(December 2021 - February 2022)

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Sree Ayyappa College
Eramallikkara
Thiruvanvandoor
Alappuzha

SREE AYYAPPA COLLEGE (T.D.B) CHENGANNUR ALAPPUZHA Dist 689 109 ERAMALLIKKARA PO THIRUVANVANDOOR

BEST AWARD

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SREE AYYAPPA COLLEGE

(Govt. Aided College, Affiliated to University of Kerala)

Eramallikkara, Chengannur, Alappuzha - 689 109. Kerala
sreeayyappacollege@gmail.com

CERTIFICATE

This certificate is awarded to Samudra Prasad for successfully completing the course

LATEX - A Document Preparation Software in Mathematics

with a consolidated score of 90 %.

(December 2021 - February 2022)

CONVENER
CIE

IQAC CONVENER

PRINCIPAL
Sree Ayyappa College
Eramallikkara
Thiruvanvandoor
Alappuzha

SREE AYYAPPA COLLEGE (T.D.B) CHENGANNUR ALAPPUZHA DIST. 689 109 ERAMALLIKKARA PO THIRUVANVANDOOR

BEST AWARD

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SREE AYYAPPA COLLEGE, ERAMALLIKKARA

Skill Development Course in Mathematics Examination,

March 2021

Introduction to LaTeX

Time: $1\frac{1}{2}$ Hours *Maximum Marks: 50*

Section A

All questions are compulsory and carries **Two** marks each.

1. Write a LaTeX code to produce $\mathbb{Z}$ in the output.
2. How to compile a LaTeX input file?
3. In LaTeX, items can be listed using ... environment.
4. Line breaks in a LaTeX document are produced by ....
5. The actual syntax of the documentclass command is ....
6. Describe the use of the column specify p.
7. Write a LaTeX code to typeset
$$\int_0^\infty \frac{sinx}{x}\, dx = \frac{\pi}{2}$$
8. How we produce a group equations in LaTeX .
9. $\sqrt{5}$ is produced by the ... command.
10. Bibliography can be produced by the ... environment.

Section B

All questions are compulsory and carries **Five** marks each.

11. Write a LaTeX code to typeset the following:

    Find the

    (a) Inverse

    (b) Rank

    of the matrix $A = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$

12. Write down the source code for:

$$\begin{aligned}(a+b)^2 &= a + ba + b \\ &= a^2 + ab + ba + b^2\end{aligned}$$

13. Write down the source code for:

$$\int_a^b f(x)\ dx = \lim_{n\to\infty} \sum_{k=1}^{n} f(x_k)\Delta x_k$$

14. Write down the source code for:

$$(a+b)^n = a^n + \binom{n}{1}a^{n-1}b + \binom{n}{2}a^{n-2}b^2 + \cdots + \binom{n}{n-1}ab^{n-1} + b^n$$

15. Write down the source code for:

    Definition 1. *A non empty set G together with a function $* : G \times G \to G$ (which s usually called as a binary operation) is a group if for all $a, b, c \in G$*

16. Write down the source code for:

Tables

Item	**No. of Items**	**Unit Price**
Note Book	3	25
Pen	2	15
Pencil	1	5

Table 1: Price List